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10/765,071

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Chac-Whan Lim

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EXAMINER

ABDI, AMARA

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

08/22/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/765,071

Applicant(s)

LIM ET AL.

Examiner

Amara Abdi

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2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY(30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413) /<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                         |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>06/16/2006</u> | 6) <input type="checkbox"/> Other: _____  |

***DETAILED ACTION***

1. Applicant's response to the last office action, filed May 11, 2007 has been entered and made of record.
2. In view of the Applicant amendments, the drawings objections are expressly withdrawn.
3. In view of the Applicant amendments, the objection to the specification is expressly withdrawn.
4. In view of the Applicant amendments, the objection to the claim 8 and claims 1, 6, 9, and 15 is expressly withdrawn.

***Remarks***

5. Applicant's arguments with respect to claims 1-20 have been fully considered, but they are not persuasive.

**Regarding the rejection of the claims under 35 U.S.C 102:**

a. Regarding claims 1 and 11, the Applicant argues that the image retoucher 100 does not require nor describe a block classification part as claimed by the Applicant.

However, in response to applicant's arguments, Examiner would like to point out that claim language is given its broadest reasonable interpretation. In the instant case, first, Simard et al. clearly disclose the receiving of binary mask indicating whether each pixel of the image input belongs in the foreground or background (column 6, line 21-23), which has clearly the same function as the block classification for classifying the input

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image into character blocks (foreground) and background blocks. Second, the system of Simard et al. is read the broad claim language calls for "classifying the pixels, whether belongs to the foreground or background", because the language does not specify any detail how to classify the input image. That any method or system for separating the pixels (input image) into foreground and background image could be read the broad claim.

b. Applicant argues that there is no disclosure or description of the extraction of an image, nor the extraction of an image as found relative to the boundary, such an image determined character region.

However, in response to applicant's arguments, in the instant case, Simard et al. clearly disclose that the image retoucher 100 is adapted to detect a spurious boundary (column 6, line 23-24), (the word detecting is read as extracting), (See the Merriam-Webster online search for the synonym of the boundary, [www-m-w.com](http://www-m-w.com)).

c. Applicant argues that there is no extension of the extracted region to the size of the input image as claimed by the Applicant. However, in response to applicant's arguments, the system of Simard et al. is read the broad claim language calls for "extension of the extracted region to the size of the input image", because the language does not specify any detail how to extend the extracted image of the character region to the size of the input image; that any method or system for extending the detected image could be read the broad claim. Furthermore, Simard et al. clearly disclose that the

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image retoucher includes an image extender (column 6, line 16; and column 6, line 50-55).

d. Applicant argues that section 102 (b) rejection is improper regarding the claims 1 and 11. The rejection under 35 U.S.C 102 (b) has been withdrawn. However the claims 1 and 11 are rejected under 35 U.S.C 102 (e) instead of 102 (b).

**Regarding rejection of the claims under 35 U.S.C 103:**

a. Regarding claims 2 and 12, the Applicant argues that there is no disclosure or suggestion of the selective filling of blocks with pixels having first and second brightness values. More specifically, there is no disclosure or suggestion of filling the character blocks with pixels "converted to have the" first brightness value and filling the background blocks with pixels "converted to have the" second brightness value, as claimed by the Applicants in claims 2 and 12 as amended.

However, in response to applicant's arguments, in the instant case Hirabayashi et al. clearly disclose the filling of blocks with pixels having first and second brightness values (column 5, line 55-60). Concerning the amendment to the claims 2 and 12 "converted to have the first brightness value " and "converted to have the second brightness value", Simard et al. clearly disclose that the input image could be a document image such as: binary, RGB, and YUV (column 6, line 18-20). The system of Simard et al. is read the broad claim language, because the language does not specify any detail how to convert the pixels to have the first brightness and the second

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brightness value. That any method or system where the input image having RGB and YUV pixels at the same time as recited by Simard et al. could be read as the converting of pixels from RGB to YUV or from YUV to RGB.

b. Regarding claims 3 and 13, the Applicant argues that the simard, Viscito and Hirabayashi references do not disclose or reasonably suggest, alone or in combination, each element as claimed by the Applicant in claims 2 and 12 as amended, from which claims 3 and 13 depend.

However, in response to applicant's arguments Simard et al. clearly disclose that input image could be an RGB and YUV representation of the documents (column 6, line 18-20), which could be read as the converting of pixels from RGB to YUV or from YUV to the RGB.

c. Regarding claims 4 and 14, the Applicant argues that there is no disclosure or suggestion in either Simard reference or the Kodaira reference of the expansion of an extracted image to the size of the input image.

However, in response to applicant's arguments, the system of Simard et al. is read the broad claim language calls for "expansion of the extracted region to the size of the input image", because the language does not specify any detail how to expand the extracted image of the character region to the size of the input image; that any method or system for expanding the detected image could be read the broad claim. Furthermore, Simard

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et al. clearly disclose that the image retoucher includes an image extender (column 6, line 16; and column 6, line 50-55).

d. Regarding claims 5 and 15, the Applicant argues that there is no disclosure or suggestion in Simard or the Background of extending the extracted region to the size of the input image. However, in response to applicant's arguments, the Examiner point out the Applicant to see the Examiner response to the claims 1 and 11. (See the response to the Arguments (c)).

e. Regarding claims 6,8,9,10,16,18,19, and 20, the Applicant argues that there is no disclosure or suggestion in the Simard reference of an ROC extension part for the expansion of an extracted image to the size of the input, the system of Simard et al. is read the broad claim language calls for "extension of the extracted region to the size of the input image", because the language does not specify any detail how to extend the extracted image of the character region to the size of the input image. That any method or system that comprises an extension part for extending the detected image could be read the broad claim (as ROC extension part); Furthermore, Simard et al. clearly disclose that the image retoucher includes an image extender (column 6, line 16; and column 6, line 50-55).

Furthermore, the Applicant argues that there is no disclosure or suggestion in the Simard reference of an ROC extension part for the expansion of the extracted image to the size of the input image. And there is no disclosure or suggestion of the extracted

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image, and in the case of the expanded background or foreground, there is no disclosure or suggestion of expansion of the size of an input image. However, in response to applicant's arguments, the Examiner would like to point out that claim language is given its broadest reasonable interpretation. As mentioned above, Simard et al. clearly disclose that the image retoucher includes an image extender (column 6, line 16; and column 6, line 50-55). Also, Simard et al. clearly disclose that the image retoucher 100 is adapted to detect a spurious boundary (column 6, line 23-24), (the word detecting is read as extracting), (See the Merriam-Webster online search for the synonym of the boundary, [www-m-w.com](http://www-m-w.com)).

Claims 7 and 17 depends from claims 6 and 16, and they are rejected for the same reason as described in the last office Action.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



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the advisory action.. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

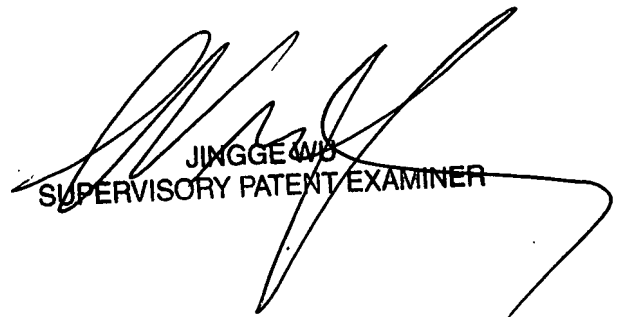
**Contact information**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amara Abdi whose telephone number is (571) 270-1670. The examiner can normally be reached on Monday through Friday 7:30 Am to 5:00 PM E.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wu Jingge can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amara Abdi  
07/06/2007

  
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SUPERVISORY PATENT EXAMINER